

Title (en)
SECONDARY BATTERY WITH ADVANCED SAFETY

Title (de)
SEKUNDÄRBATTERIE MIT VERBESSERTER SICHERHEIT

Title (fr)
BATTERIE SECONDAIRE A SECURITE AVANCEE

Publication
EP 1946396 A1 20080723 (EN)

Application
EP 06799378 A 20061023

Priority
• KR 2006004306 W 20061023
• KR 20050106296 A 20051108

Abstract (en)
[origin: WO2007055479A1] Disclosed herein is a secondary battery constructed in a structure in which an electrode assembly having a cathode/separator/anode arrangement is mounted in a battery case made of a laminate sheet including a resin layer and a metal layer, electrode taps of the electrode assembly are coupled to corresponding electrode leads, and the electrode assembly is sealed in the battery case while electrode leads are exposed to the outside of the battery case, wherein a protective film is attached to coupling regions between the electrode taps and the electrode leads for sealing the coupling regions between the electrode taps and the electrode leads. The secondary battery according to the present invention is constructed in a structure in which the coupling regions are sealed by the protective film, unlike a conventional secondary battery constructed in a structure in which the coupling regions between the electrode taps and the electrode leads are exposed in the battery case. As a result, the electrode leads are protected from external impacts, such as falling of the battery. Consequently, no internal short circuit occurs, and therefore, the safety of the battery is increased.

IPC 8 full level
H01M 50/105 (2021.01); **H01M 50/124** (2021.01); **H01M 50/178** (2021.01); **H01M 50/50** (2021.01); **H01M 50/54** (2021.01); **H01M 50/55** (2021.01); **H01M 50/553** (2021.01); **H01M 50/566** (2021.01); **H01M 10/052** (2010.01)

CPC (source: EP KR US)
H01M 10/052 (2013.01 - KR); **H01M 50/105** (2021.01 - EP KR US); **H01M 50/124** (2021.01 - EP KR US); **H01M 50/178** (2021.01 - EP KR US); **H01M 50/20** (2021.01 - KR); **H01M 50/50** (2021.01 - EP KR US); **H01M 50/54** (2021.01 - EP KR US); **H01M 50/55** (2021.01 - EP KR US); **H01M 50/553** (2021.01 - EP KR US); **H01M 50/566** (2021.01 - EP KR US); **H01M 50/572** (2021.01 - KR); **H01M 10/052** (2013.01 - EP US); **Y02E 60/10** (2013.01 - EP KR)

Designated contracting state (EPC)
DE FR GB

DOCDB simple family (publication)
WO 2007055479 A1 20070518; CN 101305483 A 20081112; CN 101305483 B 20130213; CN 102820435 A 20121212; EP 1946396 A1 20080723; EP 1946396 A4 20110330; EP 1946396 B1 20180207; EP 2426758 A1 20120307; EP 2426758 B1 20210721; KR 100821856 B1 20080415; KR 20070049553 A 20070511; TW 200731598 A 20070816; TW I332278 B 20101021; US 2007202399 A1 20070830; US 2014356697 A1 20141204; US 8795883 B2 20140805; US 9705112 B2 20170711

DOCDB simple family (application)
KR 2006004306 W 20061023; CN 200680041709 A 20061023; CN 201210240624 A 20061023; EP 06799378 A 20061023; EP 11188951 A 20061023; KR 20060102643 A 20061023; TW 95139829 A 20061027; US 201414315935 A 20140626; US 55574306 A 20061102